



Potential Tropical Cyclone TEN QuickLook Posted: 06:00 EDT 08/29/2017

NOAA and NOAA Partnership Stations Relative to the Storm 8/30/2017 2 PM Wachapreague, VA Lewisetta, VA Windmill Point, VA Kiptopeke, VA Sewells Point, VA Oregon Inlet Marina, NC Chesapeake Bay Bridge Tunnel, VA Duck, NC 8/29/2017 2 PM Beaufort, NC Wrightsville Beach, NC **USCO Station Hatteras, NC** Wilmington, NC Springmaid Pier, SC 8/29/2017 5 AM 1:10,000,000

#### Storm Analysis

As of 08/29/2017 0600 EDT, water levels along the East coast from South Carolina to Chesapeake Bay remain elevated at a range between 1.0 and 2.3 feet above normal tide levels. Water levels are rising steadily within the Chesapeake Bay ahead of the storm.

The strongest winds being observed are at Chesake Bay Bridge Tunnel, VA with winds of 30 kts and gusts between 35 and 40 kts. Elsewhere, winds are generally 10-20 kts with slightly higher gusts. Barometric pressure is falling out in front of the storm.

Water Level and Meteorological plots available below are updated automatically. A line denoting <u>Mean Higher High</u> <u>Water</u> (MHHW) is displayed to provide an approximate indication of when flooding inundation may occur.

For additional real-time and historical inundation information for select stations affected by this storm, please see <u>Coastal Inundation Dashboard</u>.

For additional data, please see the <u>Center for Operational Oceanographic Products & Services</u> website. For more information or archived products and reports, please see the Storm QuickLook Homepage.

Analyst: PFF

#### SELECT NATIONAL HURRICANE CENTER ADVISORY INFORMATION:

Potential Tropical Cyclone Ten Advisory Number 7 NWS National Hurricane Center Miami FL AL102017 500 AM EDT Tue Aug 29 2017

...DISTURBANCE LOCATED NEAR THE SOUTH CAROLINA AND NORTH CAROLINA COASTAL BORDER...

#### SUMMARY OF 500 AM EDT...0900 UTC...INFORMATION

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LOCATION...33.5N 78.5W

ABOUT 95 MI...150 KM ENE OF CHARLESTON SOUTH CAROLINA ABOUT 65 MI...100 KM SW OF WILMINGTON NORTH CAROLINA MAXIMUM SUSTAINED WINDS...40 MPH...65 KM/H PRESENT MOVEMENT...NE OR 45 DEGREES AT 12 MPH...19 KM/H MINIMUM CENTRAL PRESSURE...1006 MB...29.71 INCHES

WATCHES AND WARNINGS

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CHANGES WITH THIS ADVISORY:

A Tropical Storm Watch has been discontinued from South Santee River to Little River Inlet.

#### SUMMARY OF WATCHES AND WARNINGS IN EFFECT:

A Tropical Storm Warning is in effect for...

- \* North of Surf City to Duck
- \* Albemarle Sound
- \* Pamlico Sound

A Tropical Storm Watch is in effect for...

\* Surf City to Little River Inlet

A Tropical Storm Warning means that tropical storm conditions are expected somewhere within the warning area later today.

A Tropical Storm Watch means that tropical storm conditions are possible within the watch area later this morning.

For storm information specific to your area, including possible inland watches and warnings, please monitor products issued by your local National Weather Service forecast office.

#### **DISCUSSION AND 48-HOUR OUTLOOK**

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At 500 AM EDT (0900 UTC), the disturbance was centered near latitude 33.5 North, longitude 78.5 West. The system is moving toward the northeast near 12 mph (19 km/h), and is anticipated to turn toward the east-northeast and accelerate during the next couple of days. The expected track will take the system along the North Carolina coast today before moving out to sea tonight.

Maximum sustained winds remain near 40 mph (65 km/h) with higher gusts. The disturbance is not expected to change much in strength today and the chances for the system to become a tropical cyclone appear to be decreasing. Regardless of whether or not this system becomes a tropical cyclone, tropical-storm-force winds and heavy rains are expected over portions of North Carolina later today.

- \* Formation chance through 48 hours... medium...50 percent
- \* Formation chance through 5 days...medium...50 percent

Tropical-storm-force winds extend outward up to 105 miles (165 km) from the center.

The estimated minimum central pressure is 1006 mb (29.71 inches).

#### HAZARDS AFFECTING LAND

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WIND: Tropical storm conditions are expected within the warning area this afternoon and tropical storm conditions are possible in the watch area later this morning.

RAINFALL: The system is expected to produce total rain accumulations of 1 to 3 inches with isolated amounts of 5 inches along northeastern North Carolina and southeast Virginia coasts into the Delmarva through Wednesday. The heavier rains may result in some flooding concerns along coastal areas.

SURF: Swells generated by this disturbance will affect portions of the North Carolina and Virginia coasts during the next day or so, creating dangerous surf and rip current conditions. Please consult products from your local weather office.

TORNADOES: A brief tornado is possible through midday along the North Carolina coast.

#### **NEXT ADVISORY**

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Next intermediate advisory at 800 AM EDT. Next complete advisory at 1100 AM EDT.

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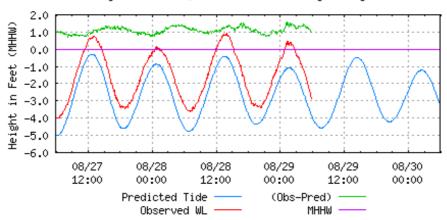
Forecaster Landsea

For the purpose of timely release, data contained within this QuickLook have undergone a "limited" NOS Quality Assurance/Control; however, the data have not yet undergone final verification. All data subject to NOS verification.

Jump to: Springmaid Pier - Water Level, Springmaid Pier - Barometric, Wrightsville Beach - Water Level, Wrightsville Beach - Winds, Wrightsville Beach - Barometric, Wilmington - Water Level, Beaufort - Water Level, Beaufort - Water Level, Beaufort - Barometric, USCG Station Hatteras - Water Level, USCG Station Hatteras - Winds, Oregon Inlet Marina - Water Level, Oregon Inlet Marina - Winds, Duck - Water Level, Duck - Winds, Duck - Barometric, Chesapeake Bay Bridge Tunnel - Water Level, Chesapeake Bay Bridge Tunnel - Winds, Sewells Point - Water Level, Kiptopeke - Water Level, Kiptopeke - Winds, Lewisetta - Water Level, Lewisetta - Winds, Windmill Point - Water Level, Wachapreague - Water Level, Wachapreague - Winds

# NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)

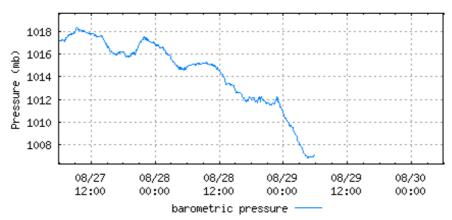


Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -2.83 ft. Predicted: -3.82 ft. Residual: 0.99 ft. Historical Maximum Water Level: Jan 1 1987, 3.65 ft.

Next High Tide: 08/29/2017 14:22 (EDT), -0.47 ft.

# NOAA/NOS/CO-OPS 8661070 Springmaid Pier, SC

#### Barometric Pressure

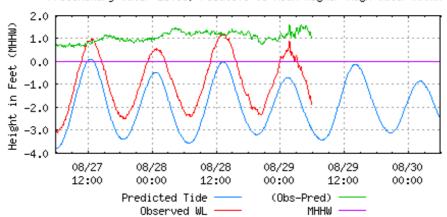


Last Observed Sample: 08/29/2017 05:48 (EDT)

Barometric Pressure: 1007.1 mb

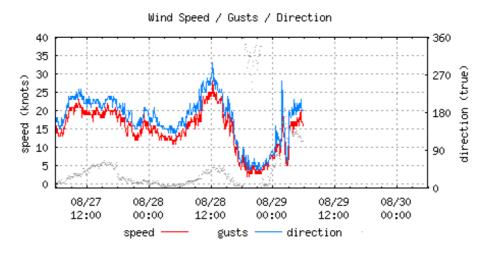
#### NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -1.88 ft. Predicted: -2.91 ft. Residual: 1.03 ft. Historical Maximum Water Level: Sep 25 2008, 2.81 ft. Next High Tide: 08/29/2017 14:03 (EDT), -0.12 ft.

# NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC



Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 16 knots Gusts: 20 knots Direction: 111° T

# NOAA/NOS/CO-OPS 8658163 Wrightsville Beach, NC

#### Barometric Pressure 1018 1016 Pressure (mb) 1014 1012 1010 1008 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 12:00 00:00 00:00 12:00 barometric pressure

Last Observed Sample: 08/29/2017 05:48 (EDT)

Barometric Pressure: 1007.0 mb

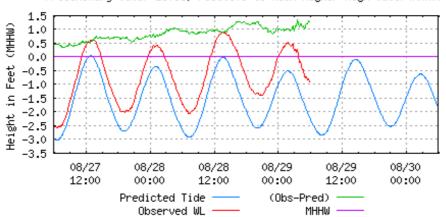
#### NOAA/NOS/CO-OPS 8658120 Wilmington, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Height in Feet (MHHW) 1.0 0.0 -1.0 -2.0 -3.0 -4.0 -5.0 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 00:00 00:00 12:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -0.09 ft. Predicted: -1.63 ft. Residual: 1.54 ft. Historical Maximum Water Level: Oct 8 2016, 3.48 ft. Next High Tide: 08/29/2017 16:37 (EDT), -0.33 ft.

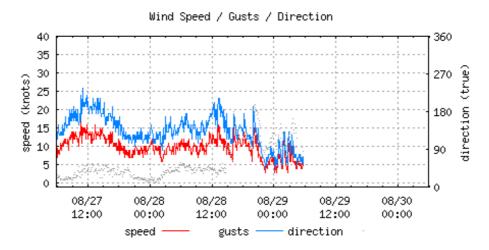
#### NOAA/NOS/CO-OPS 8656483 Beaufort, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -0.91 ft. Predicted: -2.18 ft. Residual: 1.27 ft. Historical Maximum Water Level: Sep 14 2005, 3.01 ft. Next High Tide: 08/29/2017 14:29 (EDT), -0.08 ft.

# NOAA/NOS/CO-OPS 8656483 Beaufort, NC



Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 5 knots Gusts: 8 knots Direction: 63° T

#### NOAA/NOS/CO-OPS 8656483 Beaufort, NC

# 1018 1016 1014 1012 1010 1008

barometric pressure ——
Last Observed Sample: 08/29/2017 05:48 (EDT)
Barometric Pressure: 1010.0 mb

08/29

00:00

08/29

12:00

08/30

00:00

08/28

12:00

08/27

12:00

08/28

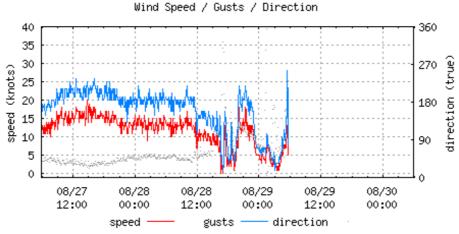
00:00

#### NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 1.2 Height in Feet (MHHW) 1.0 0.8 0.6 0.4 0.2 0.0 -0.2 -0.4 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 00:00 00:00 12:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

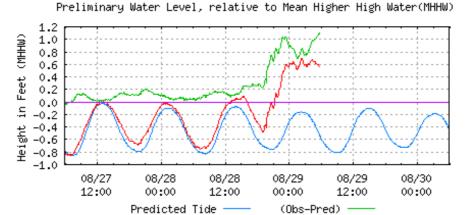
Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: 0.73 ft. Predicted: -0.21 ft. Residual: 0.94 ft. Historical Maximum Water Level: Oct 9 2016, 5.71 ft. Next High Tide: 08/29/2017 15:18 (EDT), -0.13 ft.

#### NOAA/NOS/CO-OPS 8654467 USCG Station Hatteras, NC



Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 5 knots Gusts: 6 knots Direction: 233° T

### NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC

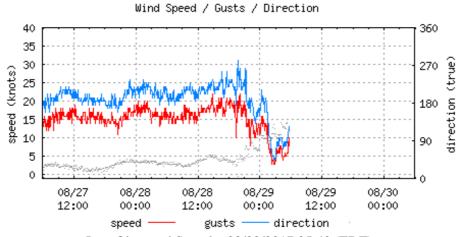


Last Observed Sample: 08/29/2017 05:42 (EDT). Data relative to MHHW Observed: 0.57 ft. Predicted: -0.54 ft. Residual: 1.11 ft. Historical Maximum Water Level: Aug 28 2011, 6.32 ft. Next High Tide: 08/29/2017 14:57 (EDT), -0.11 ft.

MHHW

Observed WL

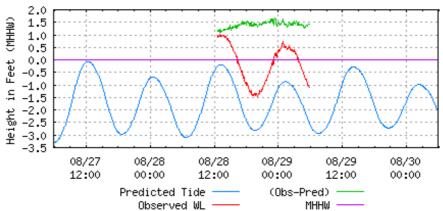
# NOAA/NOS/CO-OPS 8652587 Oregon Inlet Marina, NC



Last Observed Sample: 08/29/2017 05:42 (EDT) Wind Speed: 8 knots Gusts: 13 knots Direction: 111° T

#### NOAA/NOS/CO-OPS 8651370 Duck, NC

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -1.10 ft. Predicted: -2.51 ft. Residual: 1.41 ft. Historical Maximum Water Level: Sep 18 2003, 4.13 ft. Next High Tide: 08/29/2017 14:04 (EDT), -0.28 ft.

#### NOAA/NOS/CO-OPS 8651370 Duck, NC

Wind Speed / Gusts / Direction 360 40 35 direction (true) 30 270 speed (knots) 25 20 180 15 10 90 5 0 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 12:00 00:00 12:00 00:00 speed gusts -direction

Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 18 knots Gusts: 21 knots Direction: 130° T

# NOAA/NOS/CO-OPS 8651370 Duck, NC

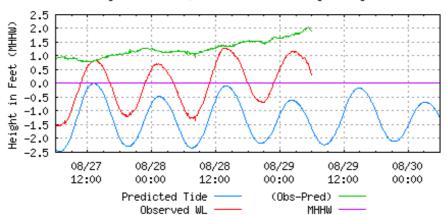
Barometric Pressure 1018 Pressure (mb) 1016 1014 1012 1010 1008 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 12:00 00:00 12:00 00:00 barometric pressure

Last Observed Sample: 08/29/2017 05:48 (EDT)

Barometric Pressure: 1012.0 mb

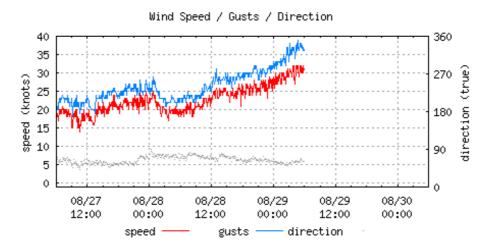
# NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:54 (EDT). Data relative to MHHW Observed: 0.31 ft. Predicted: -1.60 ft. Residual: 1.91 ft. Historical Maximum Water Level: Nov 12 2009, 4.66 ft. Next High Tide: 08/29/2017 14:49 (EDT), -0.17 ft.

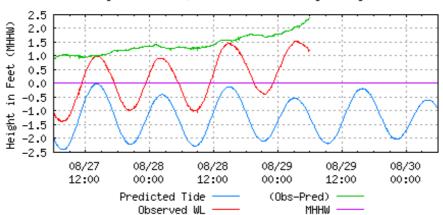
#### NOAA/NOS/CO-OPS 8638863 Chesapeake Bay Bridge Tunnel, VA



Last Observed Sample: 08/29/2017 05:54 (EDT) Wind Speed: 31 knots Gusts: 36 knots Direction: 62° T

# NOAA/NOS/CO-OPS 8638610 Sewells Point, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:54 (EDT). Data relative to MHHW Observed: 1.21 ft. Predicted: -1.19 ft. Residual: 2.40 ft. Historical Maximum Water Level: Aug 23 1933, 5.26 ft. Next High Tide: 08/29/2017 15:49 (EDT), -0.18 ft.

#### NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Feet (MHHW) 1.5 1.0 0.5 0.0 -0.5ij -1.0 -1.5-2.0 -2.5 -3.0 08/27 08/28 08/29 08/28 08/29 08/30 12:00 00:00 00:00 12:00 00:00 12:00 Predicted Tide (Obs-Pred)

Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: 0.30 ft. Predicted: -1.39 ft. Residual: 1.69 ft. Historical Maximum Water Level: Mar 8 1962, 4.13 ft. Next High Tide: 08/29/2017 15:20 (EDT), -0.17 ft.

MHHW

Observed WL

# NOAA/NOS/CO-OPS 8632200 Kiptopeke, VA

Wind Speed / Gusts / Direction 40 360 35 30 270 direction (true) speed (knots) 25 20 180 15 10 90 5 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 12:00 00:00 00:00 12:00 speed gusts - direction

Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 10 knots Gusts: 18 knots Direction: 72° T

#### NOAA/NOS/CO-OPS 8635750 Lewisetta, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)

Last Observed Sample: 08/29/2017 05:54 (EDT). Data relative to MHHW Observed: 1.36 ft. Predicted: -0.25 ft. Residual: 1.61 ft. Historical Maximum Water Level: Sep 1 2006, 4.14 ft. Next High Tide: 08/29/2017 07:55 (EDT), -0.07 ft.

12:00

00:00

(Obs-Pred)

MHHW

12:00

00:00

12:00

00:00

Predicted Tide

Observed WL

#### NOAA/NOS/CO-OPS 8635750 Lewisetta, VA

Wind Speed / Gusts / Direction 360 40 35 30 270 direction (true) speed (knots) 25 20 180 15 10 90 5 0 08/27 08/28 08/28 08/29 08/29 08/30 12:00 12:00 12:00 00:00 00:00 00:00 speed gusts -direction

Last Observed Sample: 08/29/2017 05:54 (EDT) Wind Speed: 12 knots Gusts: 19 knots Direction: 58° T

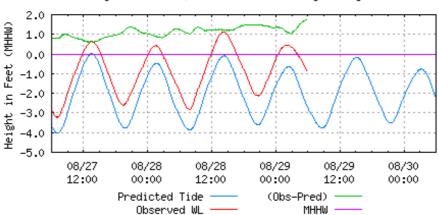
#### NOAA/NOS/CO-OPS 8636580 Windmill Point, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW) 2.0 Height in Feet (MHHW) 1.5 1.0 0.5 0.0 -0.5 -1.0 08/27 08/28 08/28 08/29 08/29 08/30 12:00 00:00 00:00 00:00 12:00 12:00 Predicted Tide (Obs-Pred) Observed WL MHHW

Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: 1.45 ft. Predicted: -0.08 ft. Residual: 1.53 ft. Historical Maximum Water Level: Sep 1 2006, 3.74 ft. Next High Tide: 08/29/2017 17:44 (EDT), 0.11 ft.

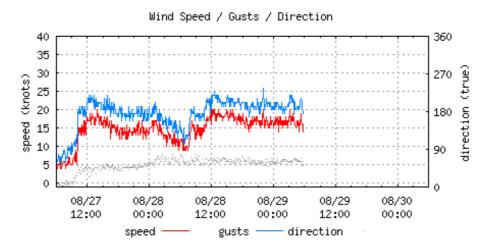
# NOAA/NOS/CO-OPS 8631044 Wachapreague, VA

Preliminary Water Level, relative to Mean Higher High Water(MHHW)



Last Observed Sample: 08/29/2017 05:48 (EDT). Data relative to MHHW Observed: -0.86 ft. Predicted: -2.62 ft. Residual: 1.76 ft. Historical Maximum Water Level: Feb 5 1998, 4.41 ft. Next High Tide: 08/29/2017 15:08 (EDT), -0.18 ft.

#### NOAA/NOS/CO-OPS 8631044 Wachapreague, VA



Last Observed Sample: 08/29/2017 05:48 (EDT) Wind Speed: 14 knots Gusts: 19 knots Direction: 52° T

Latest Water Level Observations on MHHW

Station ID	Station Name	Date/Time	Observed Water Level	Predicted Tide	Residual Water Level	24 Hour Maximum Storm Tide
8661070	Springmaid Pier, SC	08/29/2017 05:48 (EDT)	-2.83 ft	-3.82 ft	0.99 ft	0.92 ft
8658163	Wrightsville Beach, NC	08/29/2017 05:48 (EDT)	-1.88 ft	-2.91 ft	1.03 ft	1.23 ft
8658120	Wilmington, NC	08/29/2017 05:48 (EDT)	-0.09 ft	-1.63 ft	1.54 ft	0.60 ft
8656483	Beaufort, NC	08/29/2017 05:48 (EDT)	-0.91 ft	-2.18 ft	1.27 ft	0.89 ft
8654467	USCG Station Hatteras, NC	08/29/2017 05:48 (EDT)	0.73 ft	-0.21 ft	0.94 ft	0.91 ft
8652587	Oregon Inlet Marina, NC	08/29/2017 05:42 (EDT)	0.57 ft	-0.54 ft	1.11 ft	0.69 ft
8651370	Duck, NC	08/29/2017 05:48 (EDT)	-1.10 ft	-2.51 ft	1.41 ft	1.04 ft
8638863	Chesapeake Bay Bridge Tunnel, VA	08/29/2017 05:54 (EDT)	0.31 ft	-1.60 ft	1.91 ft	1.29 ft
8638610	Sewells Point, VA	08/29/2017 05:54 (EDT)	1.21 ft	-1.19 ft	2.40 ft	1.54 ft
8632200	Kiptopeke, VA	08/29/2017 05:48 (EDT)	0.30 ft	-1.39 ft	1.69 ft	1.09 ft
8635750	Lewisetta, VA	08/29/2017 05:54 (EDT)	1.36 ft	-0.25 ft	1.61 ft	1.47 ft
8636580	Windmill Point, VA	08/29/2017 05:48 (EDT)	1.45 ft	-0.08 ft	1.53 ft	1.45 ft
8631044	Wachapreague, VA	08/29/2017 05:48 (EDT)	-0.86 ft	-2.62 ft	1.76 ft	1.13 ft

Center for Operational Oceanographic Products & Services (CO-OPS) | National Ocean Service (NOS) National Oceanic and Atmospheric Administration | U.S. Department of Commerce